

AMENDMENTS TO THE CLAIMS

The following is a complete listing of all claims in the subject application, with the status of each claim indicated in a parenthetical expression. Claims 1, 4, 27 and 31 being amended herewith are presented with markings showing the changes made relative to the immediate prior version. Claims 2, 3, 5-26, 28-30 and 32 not being amended are presented in clean version.

1. (Currently Amended) A structural steel building element comprising a structural steel profile extending lengthwise between first and second ends, said profile having a substantially uniform cross-section defined by a web, a pair of side flanges extending perpendicular to said web, and outer corners respectively joining said side flanges to said web, said web having a constriction imparting increased load-bearing capacity to said profile in tension, compression and torsion, a pair of planar segments respectively disposed on opposite sides of said constriction, and inner corners respectively joining said planar segments to said constriction, said constriction including a pair of arms extending angularly inwardly from said inner corners, respectively, to a curved base having an apex contained in a plane, said planar segments having outer surfaces, respectively, contained in a plane parallel to said plane of said apex, said side flanges respectively extending from said outer corners in the same direction as said constriction to tips, respectively, contained in a plane parallel to said plane of said apex, said building element having an overall width between said plane of said planar segments and said plane of said tips, said constriction having a width between said plane of said planar segments and said plane of said apex ~~about of~~ substantially one-third said overall width, said profile having a load-bearing capacity to

serve as a load-bearing support column or beam integral to a building structure.

2. (Original) The building element recited in claim 1 wherein said side flanges include planar portions, respectively, having outer surfaces contained in parallel planes perpendicular to said plane of said planar segments, and said building element has an overall height between said planes of said planar portions.

3. (Original) The building element recited in claim 2 wherein said constriction is bisected by a constriction axis perpendicular to said plane of said planar segments and said constriction axis is centrally located along said overall height of said building element.

4. (Currently Amended) The building element recited in claim 3 wherein said overall width is ~~about~~ substantially one-half said overall height.

5. (Original) The building element recited in claim 2 wherein said constriction is bisected by a constriction axis perpendicular to said plane of said planar segments and said constriction axis is located along said overall height of said building element so as to be spaced a distance of one-third said overall height from one of said planes of said planar portions and a distance of two-thirds said overall height from the other of said planes of said planar portions.

6. (Original) The building element recited in claim 5 wherein said overall width is

about one-fourth said overall height.

7. (Original) The building element recited in claim 2 wherein said tips terminate at side edges and said planar portions respectively extend from said outer corners to said side edges.

8. (Original) The building element recited in claim 2 wherein said planar portions respectively extend from said outer corners to said tips and said tips include end flanges extending from said planar portions, respectively, outwardly away from one another.

9. (Original) The building element recited in claim 2 wherein said planar portions respectively extend from said outer corners to said tips and said tips include end flanges extending from said planar portions, respectively, inwardly toward one another.

10. (Original) The building element recited in claim 9 wherein said end flanges extend linearly from said planar portions, respectively, perpendicular to said planar portions and parallel to said planar segments.

11. (Previously Presented) The building element recited in claim 10 wherein said planar portions are joined to said end flanges by curved outside corners, respectively.

12. (Currently Amended) The building element recited in claim 1 wherein said arms extend linearly from said inner corners to said base and define an included angle of about substantially 70 degrees.

13. (Original) The building element recited in claim 12 wherein said inner corners are curved and said outer corners are curved.

14. (Original) The building element recited in claim 1 wherein said arms are joined to said inner corners at junctions, respectively, and said constriction has a height between said junctions no greater than one-fourth said overall height.

15. (Currently Amended) The building element recited in claim 14 wherein said constriction has a height of about substantially 4.2 cm.

16. (Original) The building element recited in claim 1 wherein said web comprises at least one additional constriction between said side flanges.

17. (Original) The building element recited in claim 1 wherein each of said side flanges includes an inward protrusion.

18. (Original) The building element recited in claim 1 wherein each of said side flanges includes an outward protrusion.

19.-25. (Cancelled)

26. (Original) The building element recited in claim 1 wherein each of said side flanges includes a protrusion.

27. (Currently Amended) A structural steel building element comprising a structural steel profile extending lengthwise between first and second ends, said profile having a substantially uniform cross-section defined by a web, a pair of side flanges extending perpendicular to said web, and outer corners respectively joining said side flanges to said web, said web having a constriction imparting increased load-bearing capacity to said profile in tension, compression and torsion, said constriction being bisected by a constriction axis parallel to said side flanges, said web having a pair of web segments respectively disposed on opposite sides of said constriction, and inner corners respectively joining said web segments to said constriction, said constriction including a pair of arms extending linearly and angularly inwardly from said inner corners, respectively, to a curved base with each of said arms defining an angle of about substantially 35° with said constriction axis, said profile having a load-bearing capacity to serve as a load-bearing support column or beam integral to a building structure.

28. (Original) The building element recited in claim 27 wherein said web segments are planar.

29. (Original) The building element recited in claim 27 wherein said constriction axis is centrally located between said side flanges.

30. (Original) The building element recited in claim 27 wherein said constriction axis is non-centrally located between said side flanges.

31. (Currently Amended) The building element recited in claim 27 wherein said ~~tips~~ side flanges include respective planar portions extending perpendicular to said web and respective end flanges angled from said ~~side flanges~~ planar portions, respectively.

32. (Original) The building element recited in claim 27 wherein each of said side flanges includes a protrusion.